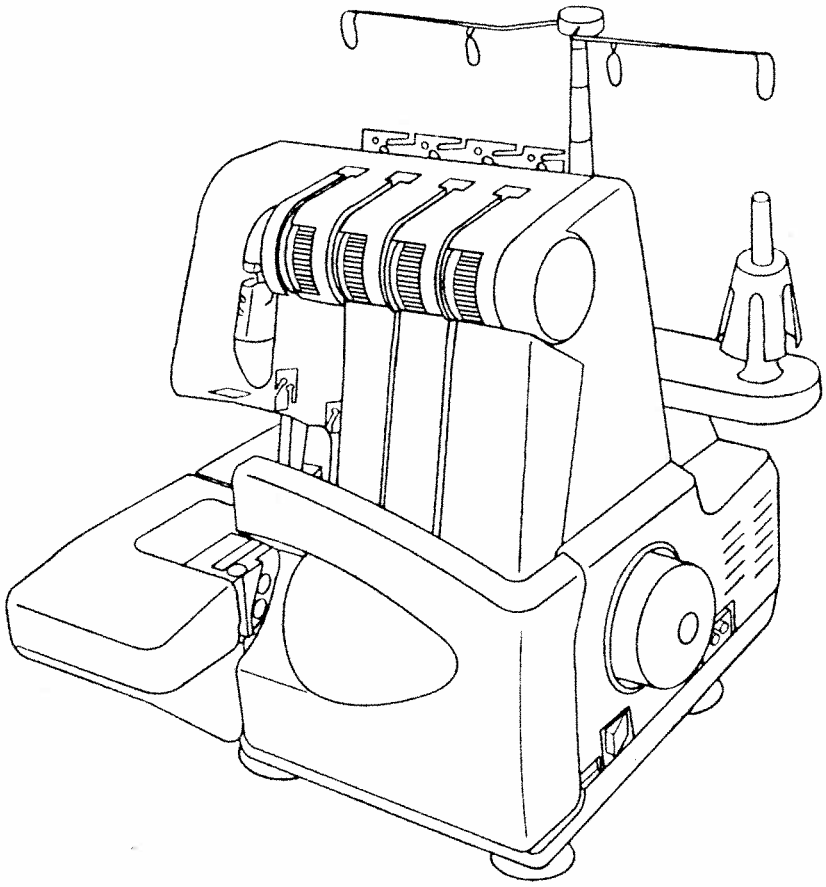
INSTRUCTION MANUAL



WHITE

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MODEL 1634

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IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic safety precautions should always be followed, including the following:

Read all instructions before using
(this sewing machine)

DANGER To reduce the risk of electric shock:

An appliance should never be left unattended when plugged in. Always unplug this appliance from the electric outlet immediately after using and before cleaning.
Always unplug before relamping, Replace bulb with same type rated 15 watts.

WARNING To reduce the risk of burns. fire, electric shock, or injury to persons:

Operate sewing machine only when mounted in sewing machine table, case, and the like. See the installation instructions.

1. Do not allow to be used as a toy. Close attention is necessary when this appliance is used by or near children.
2. Use this appliance only for its intended use as described in this manual. Use only attachments recommended by the manufacturer as contained in this manual.
3. Never operate this appliance if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into water, Return the appliance to the nearest authorized dealer or service center for examination, repair, electrical or mechanical adjustment.
4. Never operate the appliance with any air openings blocked, Keep ventilation openings of the sewing machine and foot controller free from the accumulation of lint, dust, and loose cloth.
5. Never drop or insert any object into any opening.
6. Do not use outdoors.
7. Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
8. To disconnect, turn all controls to the off ("0") position, then remove plug from outlet.
9. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
10. Keep fingers away from all moving parts. Special care is required around the sewing machine needle.
11. Always use the proper needle plate. The wrong plate can cause the needle to break.
12. Do not use bent needles.
13. Do not pull or push fabric while stitching. It may deflect the needle causing it to break.
14. Unplug the sewing machine when making any adjustments in the needle area, such as threading needle, changing needle, changing presser foot, etc.
15. Always unplug sewing machine from the electrical outlet when removing covers, lubricating, or when making any other user servicing adjustments mentioned in the instruction manual.

SAVE THESE INSTRUCTIONS

INTRODUCTION

THANK YOU FOR CHOOSING OUR OVERLOCK MACHINE

This overlock machine can stitch dependable seams on all kinds of fabric, both light and heavy, including cotton, wool, rayon, tricot, jersey, and knits.
You do not need a special table for this portable machine.
We suggest that you read this instruction manual carefully before you start to operate the machine.

FOR YOUR SAFETY

1. Keep your eyes on the needles when operating the overlock machine. Do not touch the handwheel, the cutter or the needles when the machine is running.
2. Turn off the power switch, and pull out the plug from electric socket in the following cases:
   * When you have finished your sewing.
   * When you leave the serger temporarily.
   * When replacing the parts.
   * When cleaning and adjusting the machine.

BEFORE YOU USE

1. Wipe dust and oil off the machine to avoid any stains on the sewing materials.
2. Test sew by using the same sewing materials you intend to sew.
3. Read this instruction manual thoroughly before replacing the cutters and the needles. Follow the instructions for correct replacements and adjustments.

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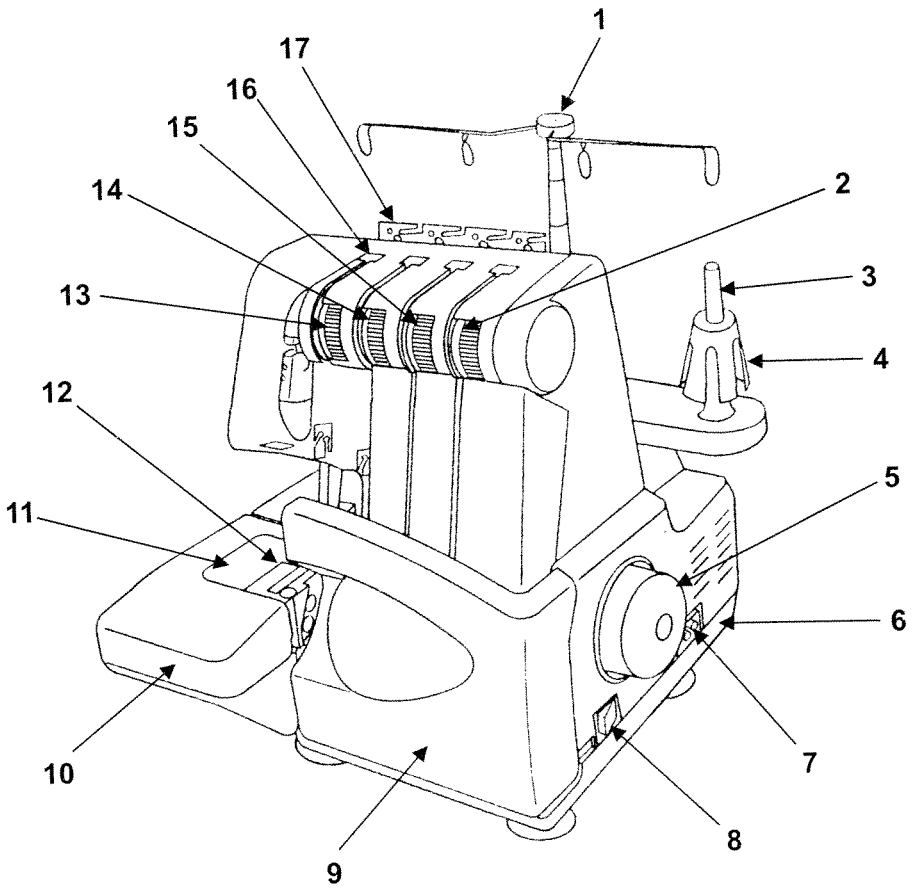
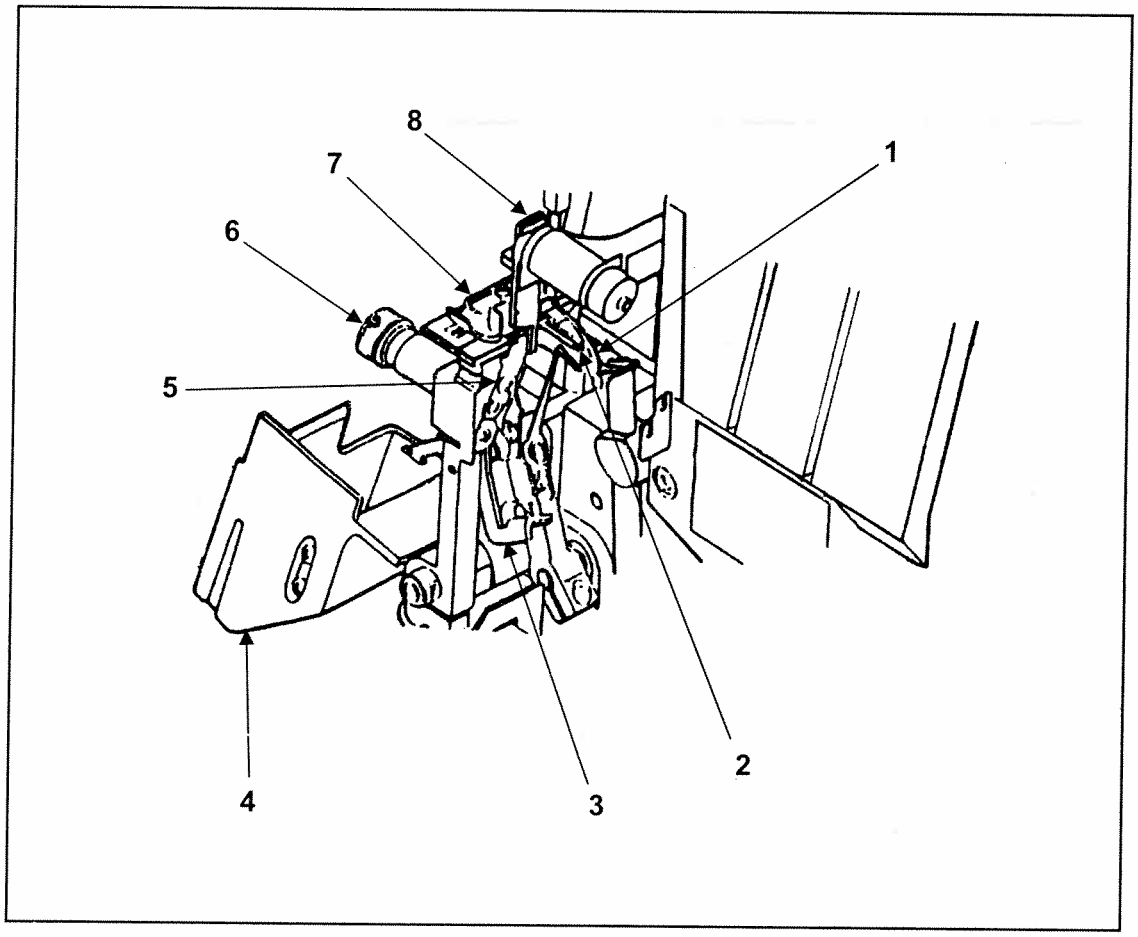
NAME OF MAIN COMPONETS



1. Thread pole
2. Lower looper thread tension dial
3. Spool pin
4. Spool holder
5. Handwheel
6. Base
7. Machine socket
8. Power switch
9. Front cover
10. Support bed
11. Free arm
12. Needle plate
13. Left needle thread tension dial
14. Right needle thread tension dial
15. Upper looper thread tension dial
16. Thread guide
17. Thread guide plate



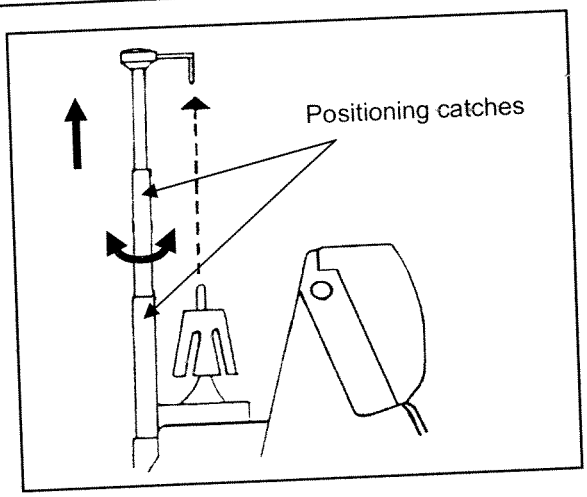
1. Upper looper
2. Lower looper
3. Free arm release lever
4. Free arm
5. Lower knife
6. Cutting width adjustment knob
7. Presser foot
8. Upper knife

SETTING UP YOUR MACHINE

Set your Overlock machine on a sturdy flat surface.

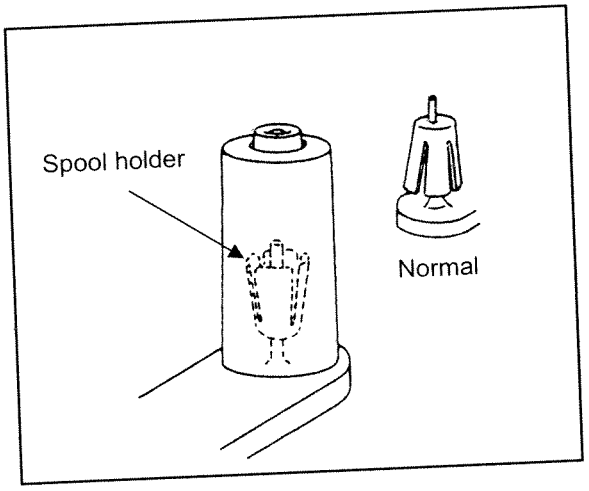
[THE POSITION OF THREAD POLE]

Pull up thread pole to its highest point before threading.
Turn the thread pole so the thread guides come right above the spool pins.



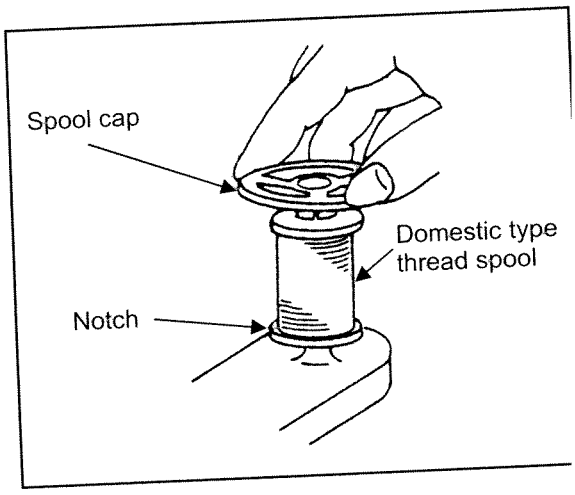
[CONE HOLDERS]

Both industrial cones and domestic type thread spools can be used on this machine.
For large diameter industrial cones use the cone holders with the large end at the top.
For small diameter cones. use the same cone holders with the small end at the top.



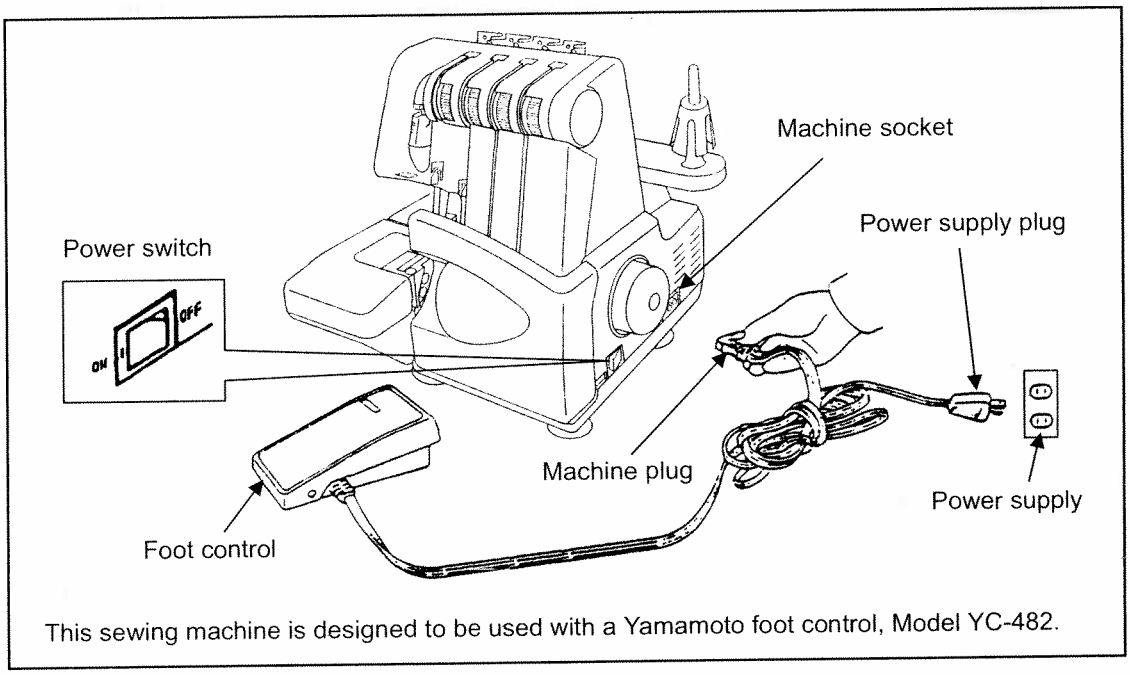
[SPOOL CAPS]

When using domestic type thread spools, remove the spool holders and place spool caps over the thread spools.



[CONNECTING THE FOOT CONTROL]

Push foot control plug into the machine socket and then into main socket.
Turn on the power switch. This power switch controls both the machine power and sewing light.

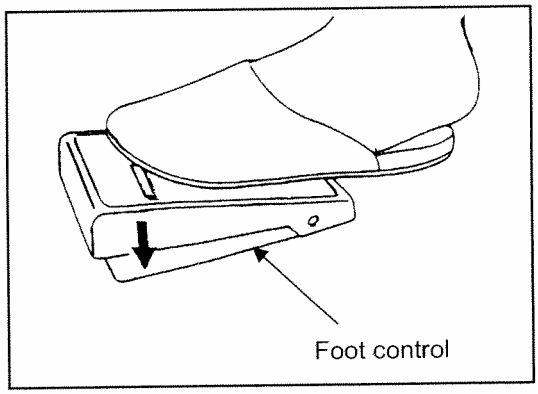


This sewing machine is designed to be used with a Yamamoto foot control, Model YC-482.

※This appliance has a polarized plug (one blade widerthan the other). To reduce the risk of electric shock, this plug is intended to fit in a polarized outlet only one way, if the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not modify the plug in any way.

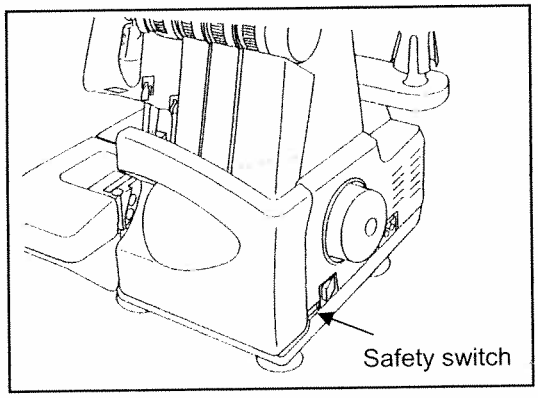
[CONTROLLING SEWING SPEED]

The foot control regulates the sewing speed.
The sewing speed can be adjusted by increasing or decreasing the pressure on the foot control.



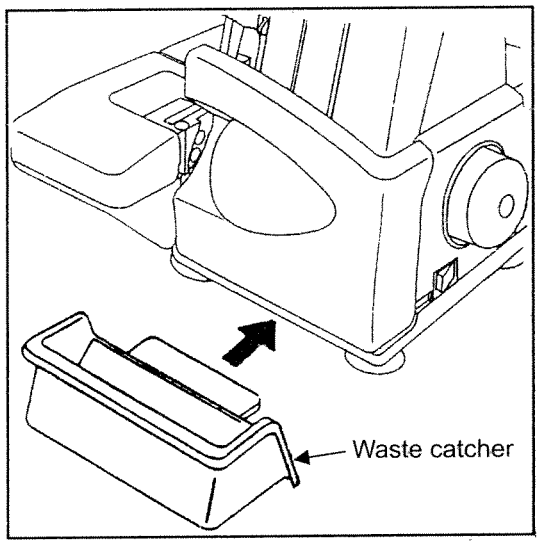
[SAFETY SWITCH]

This machine is equipped with a micro safety switch.
The machine is automatically cut off form the electricity supply if either the free arm or front cover is open.
Close both free arm and front cover before you start sewing.



[ATTACHING THE WASTE CATCHER]

The waste catcher catches the cut-off fabric as you sew, keeping your working area clean. Place the waste catcher between the machine and table.



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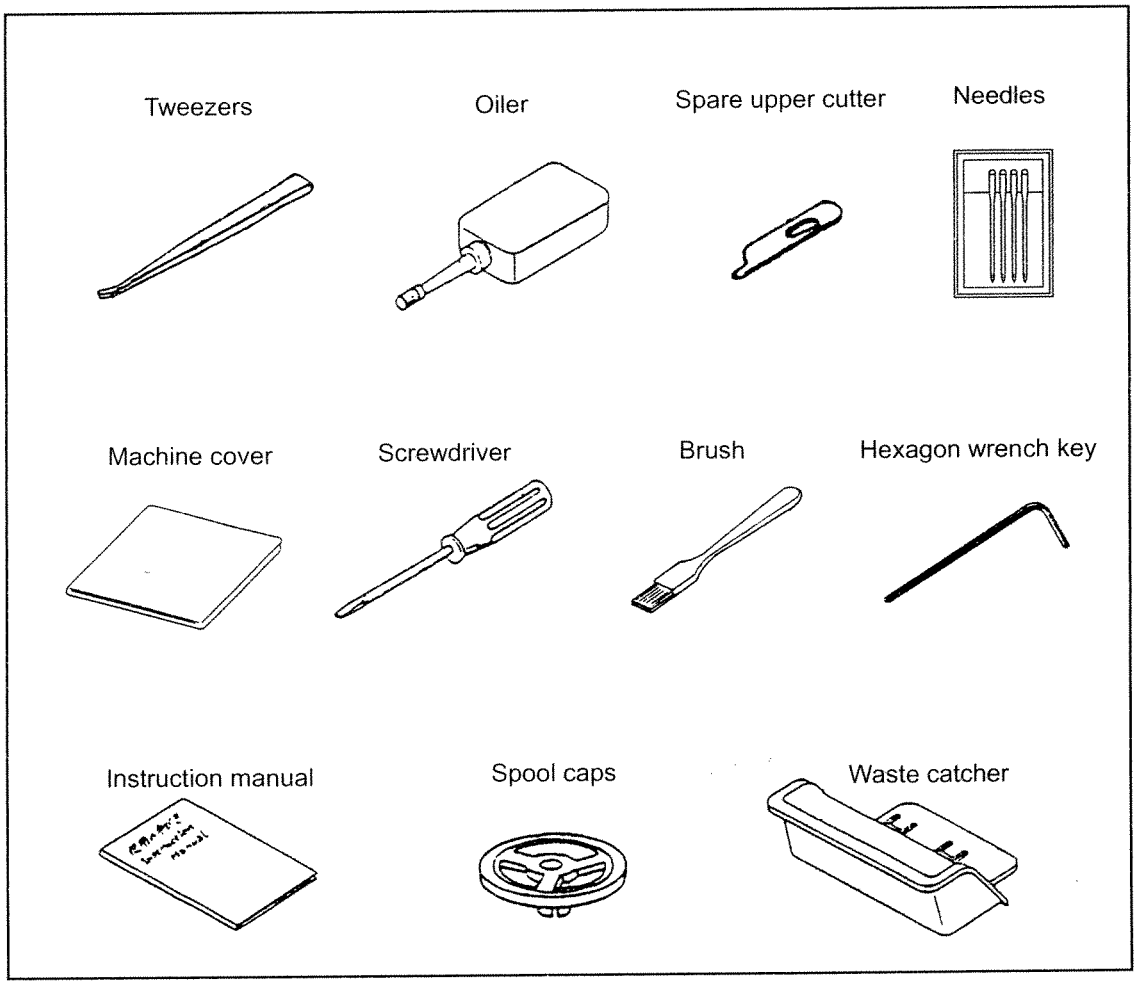
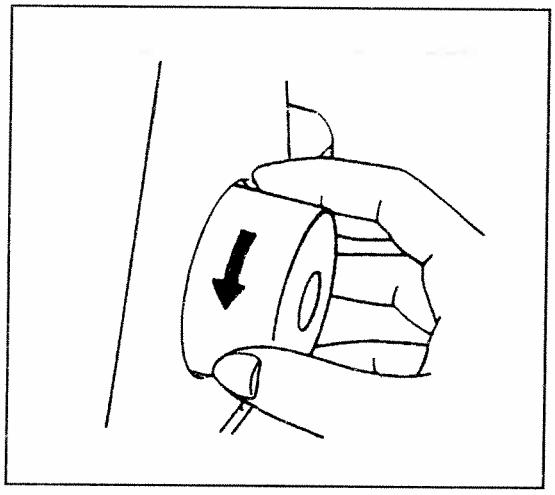


USING THE MACHINE

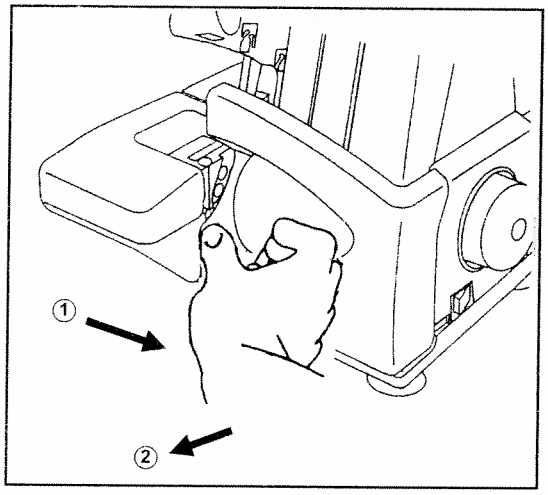
[HAND WHEEL]

Always turn handwheel toward you, i.e. the same direction as on a household sewing machine.



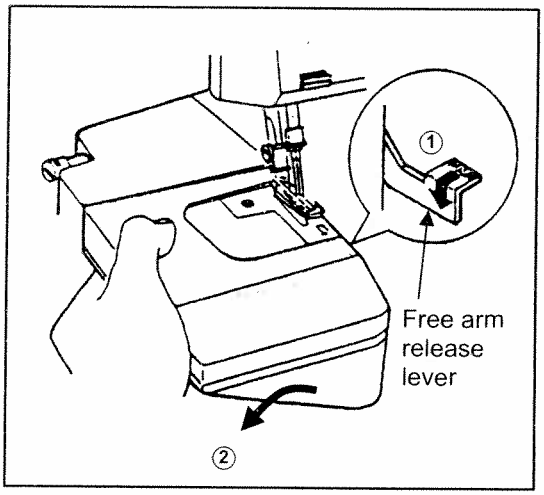
[FRONT COVER]

To open front cover, slide the hollow to the right as far as it will go then pull front cover toward you.
The front cover won't close while the free arm is open.



[FREE ARM]

Open the free arm for threading.
Open the front cover first.
While pushing the release lever, push the free arm down ward with your left hand.



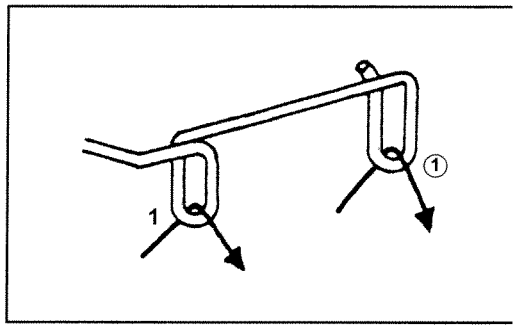
LOOPER THREADING

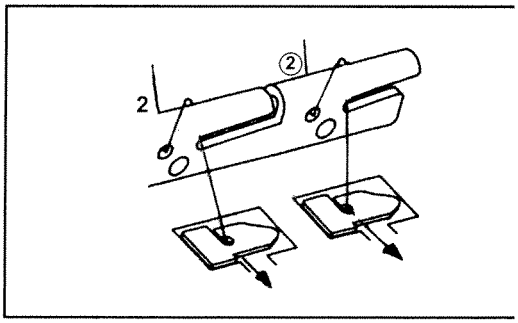
Correct threading is important otherwise uneven stitches or thread breakage may result.
A convenient threading chart is placed on the front panel inside the front cover.

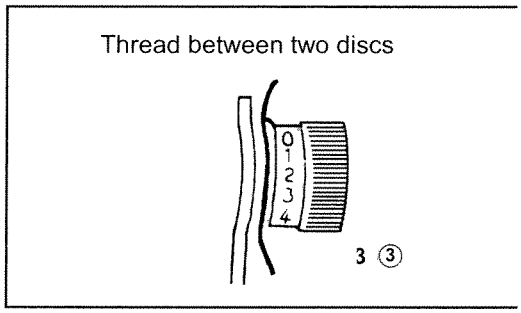
In addition. each thread guide is colored for threading indication.
To help in threading, tweezers can be found in the accessory box.
Threading must be carried out in the following sequence.

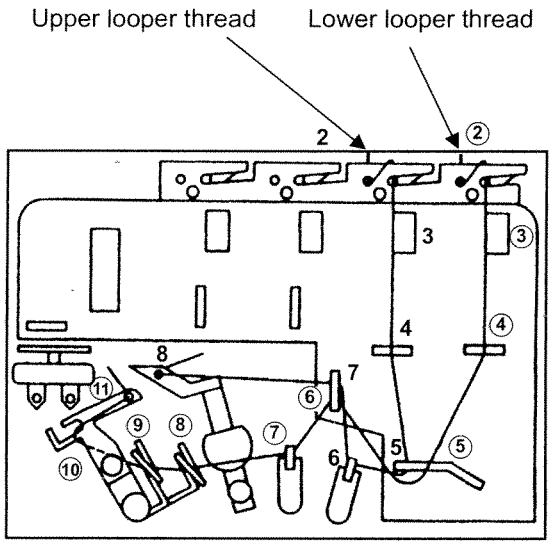
1. FIRST.....Upper looper
2. SECOND.....Lower looper
3. THIRD.....Right needle
4. FINALLY.....Left needle

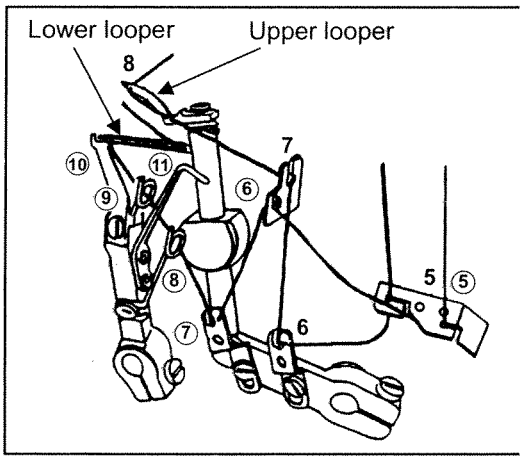
1. Open the front cover and free arm.
2. Turn the handwheel toward you until. the looper comes to best position for threading.
3. Pass the upper looper thread and lower looper thread as illustrated.
   Important: The thread must lie correctly between the two discs inside the tension dials.
4. Pull out the thread end about 10 cm (4") long from the looper eyes. Raise the presser foot and place threads under it, then lower the presser foot.





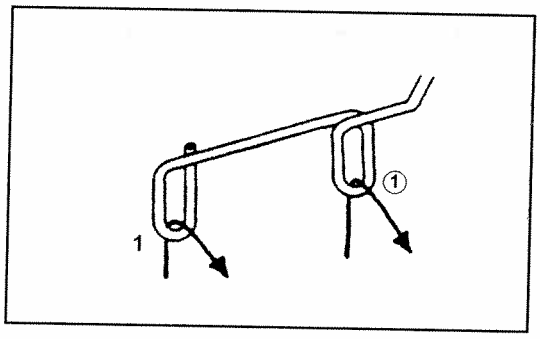


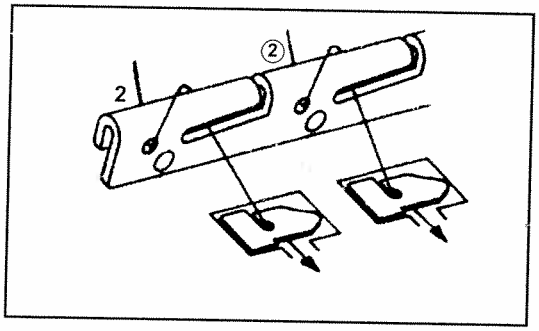


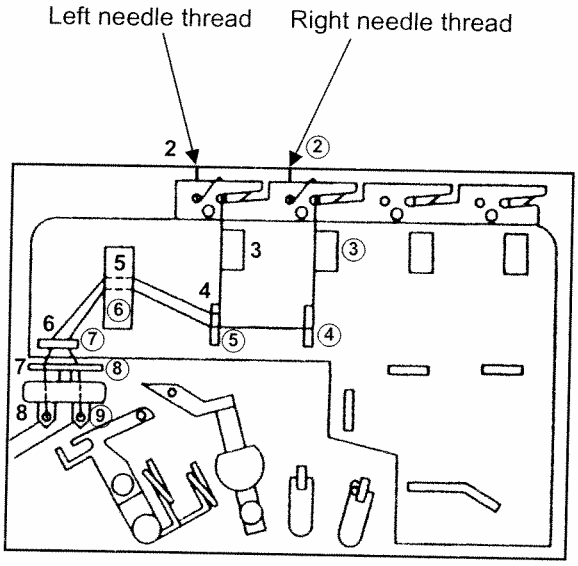


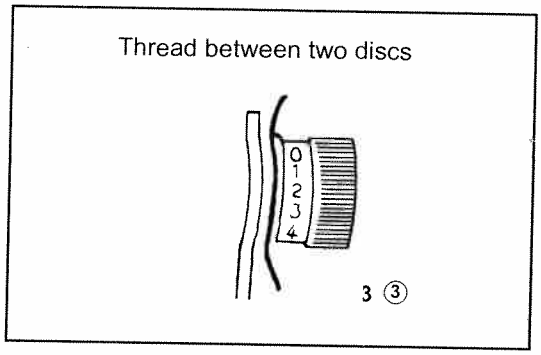
NEEDLE THREADING

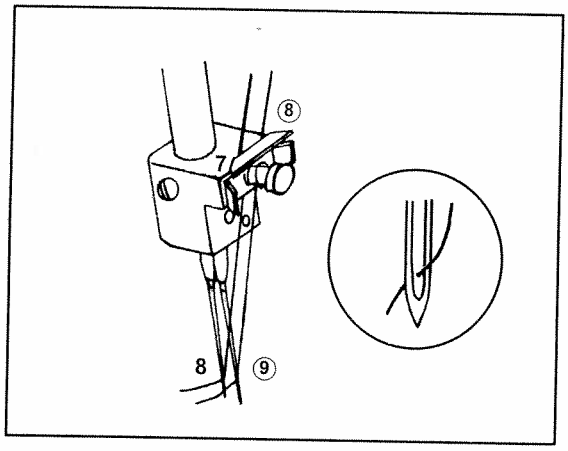
5. Turn the handwheel toward you until needles are fully raised.
6. Pass the right and left needle threads as illustrated.
   Important: The thread must lie correctly between the two discs inside the tension dials.
   Pass through the needle eyes from front to back as illustrated.
7. Pull out the thread end about 10 cm (4") long from the needle eyes. Raise the presser foot and place threads under it, then lower the presser foot.

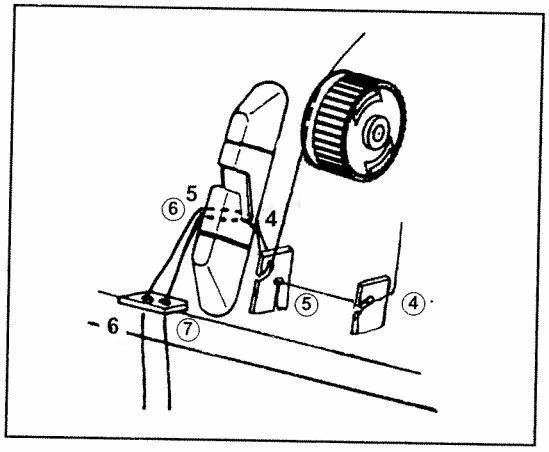






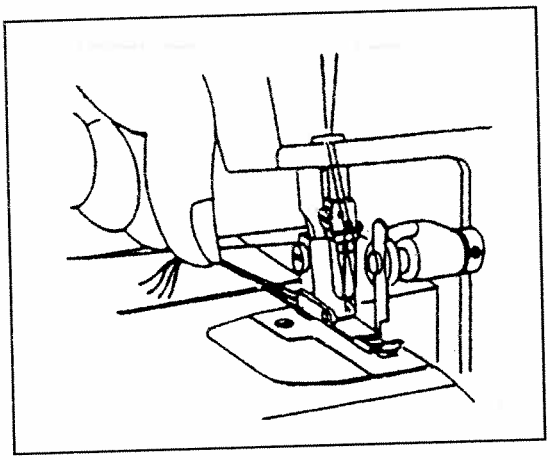






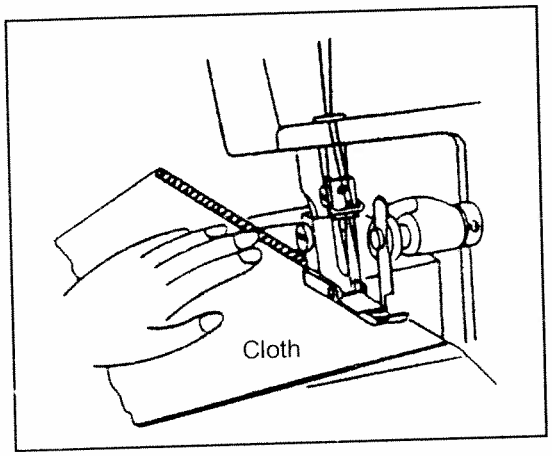
TRIAL SEWING

When the overlock has been threaded for the first time or re-threaded because of thread breakage during sewing, start sewing in the following manner.

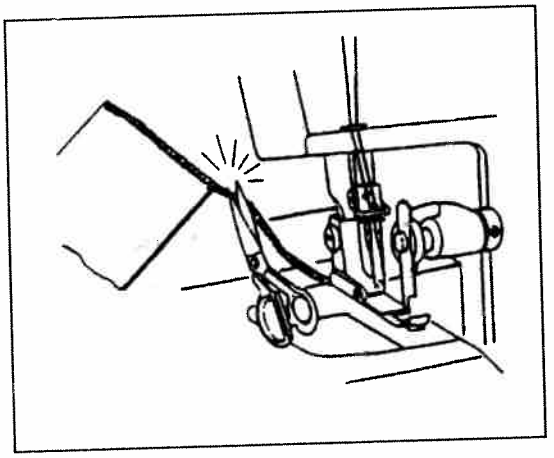


Holding the end of threads between your left finger tips, turn the handwheel slowly toward you two or three times and check the thread chain.

Place fabric for trial sewing under the presser foot and start sewing slowly.
The fabric will be automatically fed.
Guide the fabric as you serge.



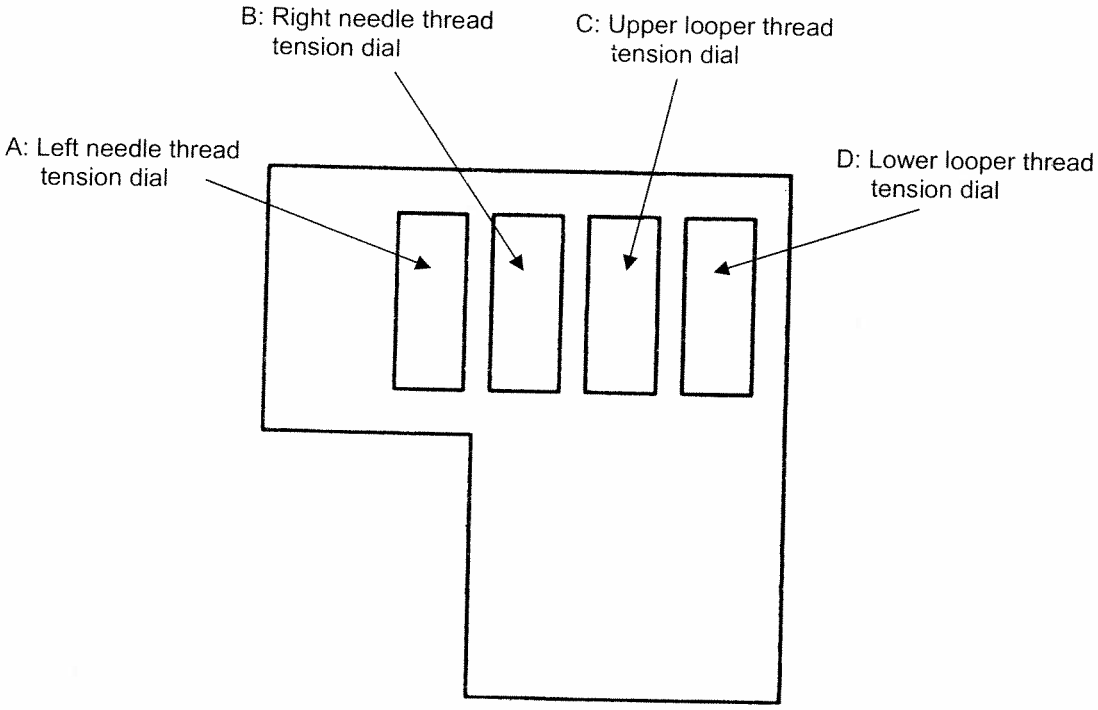
When work is finished, continue sewing to form about 5 cm (2") long thread chain from the end of fabric.
Cut the threads with a scissor.

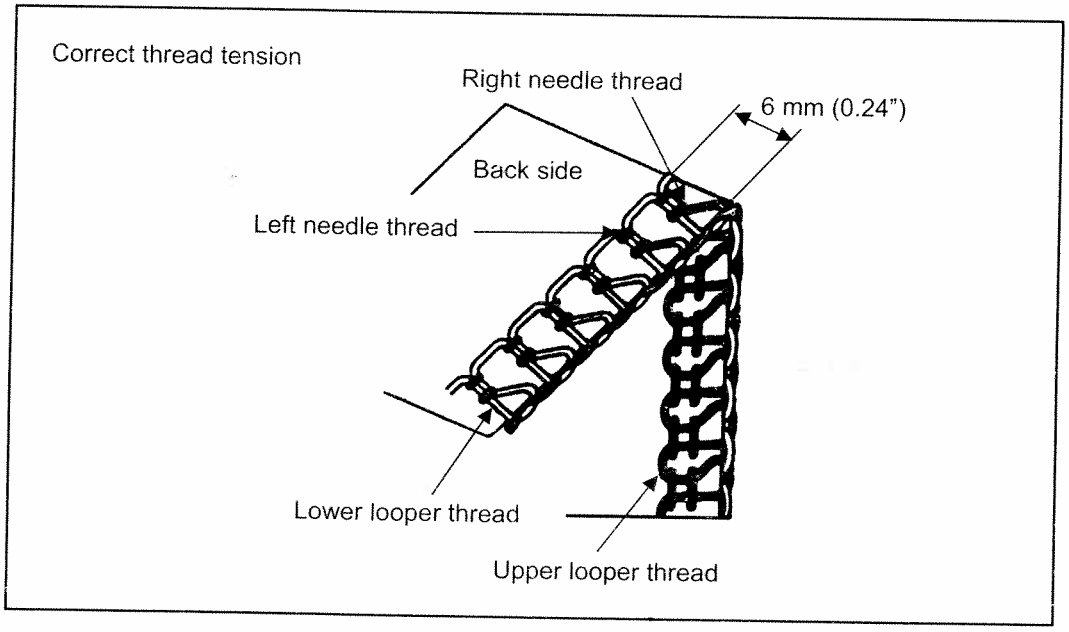


ADJUSTING THREAD TENSIONS

Thread tensions will vary according to the type and thickness of both thread and fabric. Adjust the thread tension of the machine accordingly while checking the seam.

Thread tension: Turn dial toward smaller numbers, tension becomes loose.
Turn dial toward larger numbers, tension becomes tight.

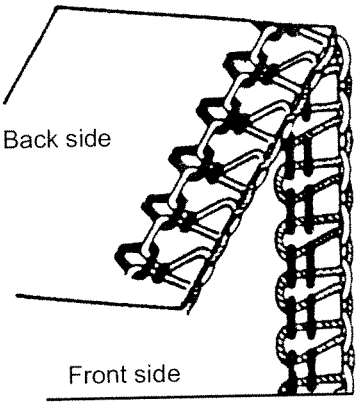

B: Right needle thread tension dial
C: Upper looper thread tension dial
A: Left needle thread tension dial
D: Lower looper thread tension dial



It is necessary to adjust the thread tension for the seams shown below.

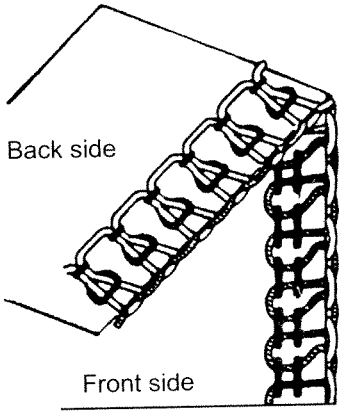
[ADJUSTING THE NEEDLE THREAD TENSIONS]

The left needle thread tension is too loose.



Tighten the left needle thread tension.

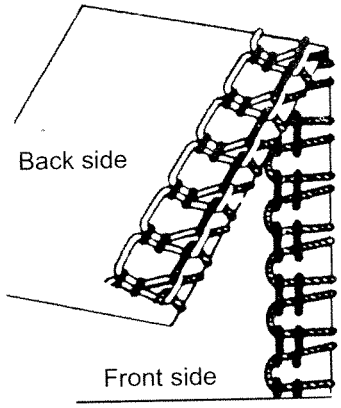
The right needle thread tension is too loose.



Tighten the right needle thread tension.

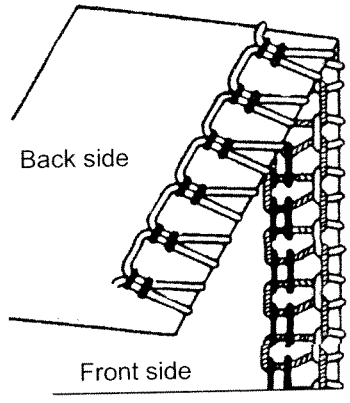
[ADJUSTING THE LOOPER THREAD TENSIONS]

The lower looper thread is tight and/or the upper looper thread is loose.



Loosen the lower looper thread tension and/or tighten the upper looper thread tension.

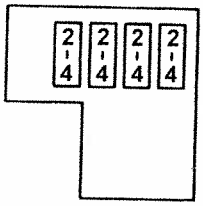
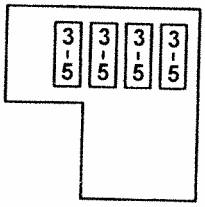
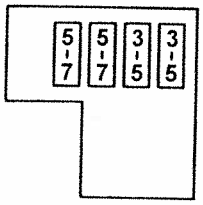
The upper looper thread is tight and/or the lower looper thread is loose.



Loosen the upper looper thread tension and/or tighten the lower looper thread tension.

MACHINE ADJUSTMENT CHART

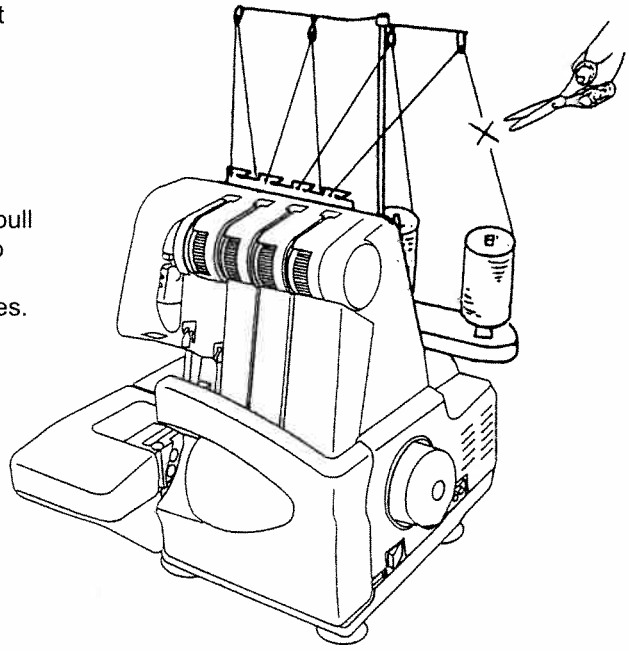
The best tension for one fabric may not be correct for another.
The required tensions depend upon stiffness and thickness of fabric, thread size and type.
If necessary, readjust referring to the chart below.

Fabrics	Threads	Needle	Stitch length	Standard Setting
Light-weight · Georgette · Organdy · Lawn · Voile · Crepe-de-chine · Silk etc.	· Cotton · Spun polyester · Polyester continuous No. 80 - 100	HA × 1 No. 11 130 / 705H No. 80	2.0 - 3.5 mm · Standard 2.5 mm	
Medium-weight · Cotton · Poplin · Gingham · Corduroy etc.	· Cotton · Spun polyester · Polyester continuous No. 60 - 100	HA × 1 No.11-14 130 / 705H No. 80 - 90	2.0 - 3.5 mm · Standard 2.5 mm	
Heavy-weight · Denim · Tweed · Velour etc.	· Cotton · Spun polyester · Polyester continuous No. 50 - 80	HA × 1 No.14 130 / 705H No. 90	2.5 - 4.0 mm · Standard 3.0 mm	

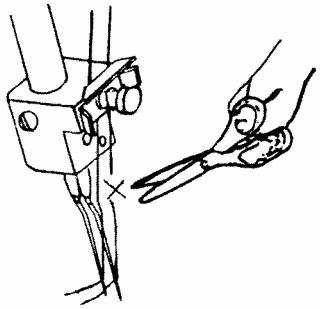
CHANGING THE THREAD (TYING ON)

It is simple to change the thread in the following manner.

Cut the thread above the spool pin, and knot ends of old and new threads together.
Set the tension dials to "O" and raise the presser foot.

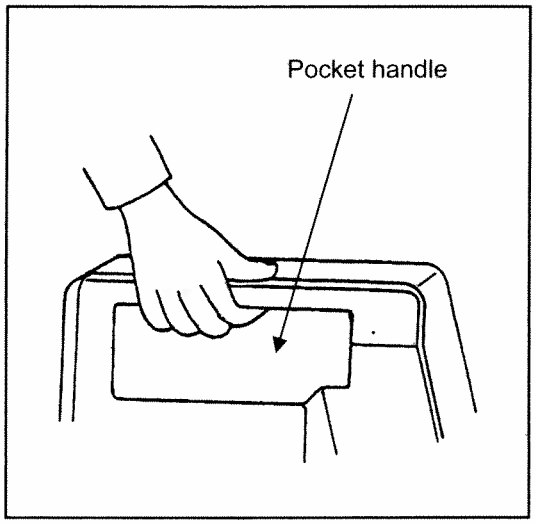


Pull the other end of thread until knots come under the presser foot. For needle threads, pull the other ends of threads until knots come to needle eyes and cut the threads at the both sides of the knots. Then re-thread the needles.



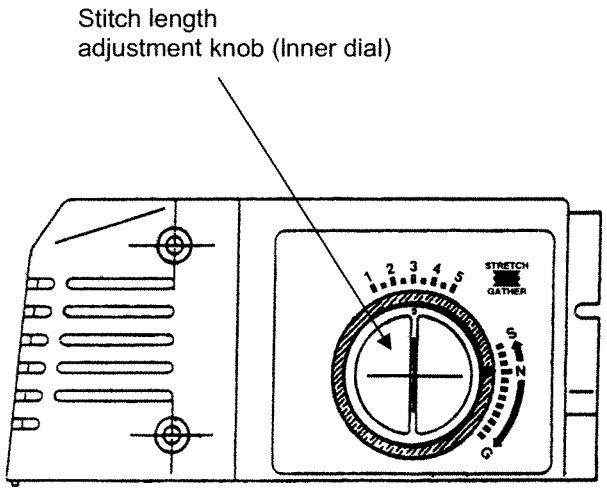
BUILT-IN POCKET HANDLE

The Built in pocket handle is a convenient way to carry your machine.



ADJUSTMENT OF STITCH LENGTH

There are nine setting adjustments which can be made from 1.0 to 5.0 mm.
Most overlock work is done with a basic stitch length setting of 2.5-3.5 mm.



[STITCH LENGTH SETTING]

Stitches	Stitch length
Regular seaming	2.0 - 5.0 mm 3.0 mm (Standard Setting)
Narrow seaming	1.0 - 2.0 mm
Rolled edging	1.0 - 2.0 mm
Picot edging	3.0 - 4.0 mm

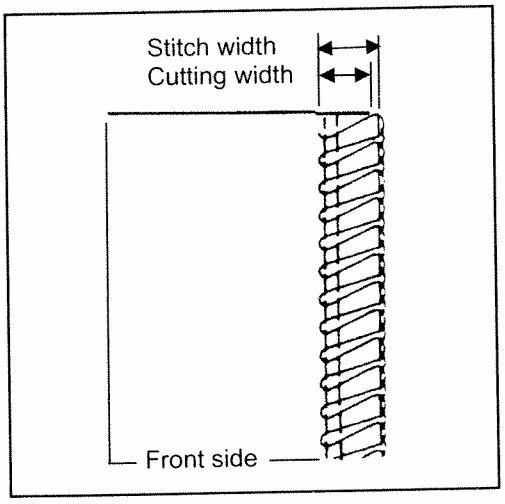
CUTTING WIDTH

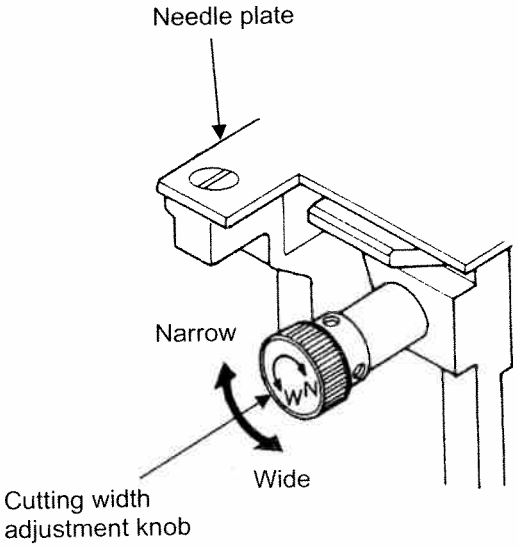
The proper cutting width differs with the type of fabric. Check the seams each time, and adjust the cutting width as follows.

1. Turn the handwheel toward you until the needles are at the lowest position.
2. Open the front cover and free arm.
3. Turn the cutting width adjustment knob until the looper threads lie along the edge of the fabric.

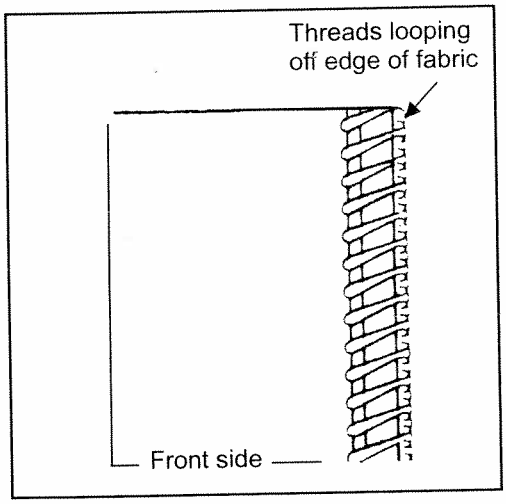
Adjust to a narrower cutting width if the fabric edges curl when sewing. Turn the cutting width adjustment knob to the right.
Adjust to a wider cutting width if the thread loops off the edge of the fabric. Turn the cutting width adjustment knob to the left.

[THE PROPER CUTTING WIDTH]

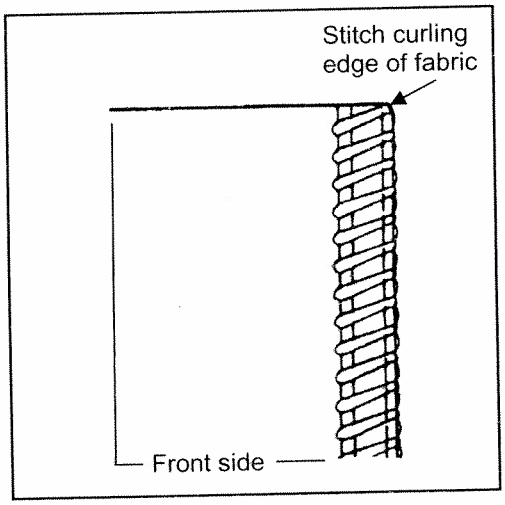




[ADJUST TO A WIDER CUTTING WIDTH]



[ADJUST TO A NARROWER CUTTING WIDTH]

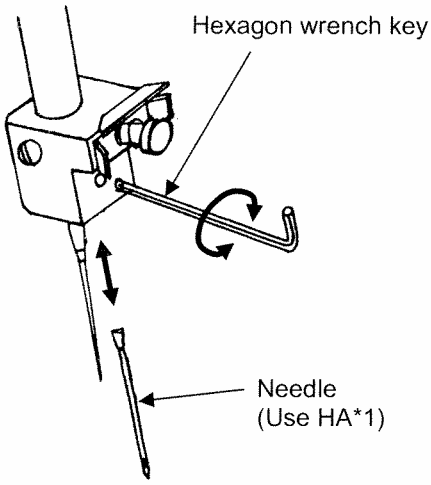


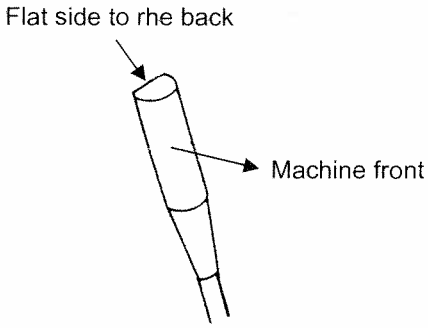
CHANGING THE NEEDLE

Turn the power switch to "OFF" before changing the needles.
Do not use any needle which is bent or blunt.

1. Turn the handwheel toward you until the needles are fully raised.
2. Open the front cover and lower the presser foot.
3. Using the hexagon wrench key from the accessory box, loosen the needle clamp screws and remove the needles. Upper left screw for left needle and lower right screw for right needle.
4. Insert the new needle with the flat side to the back into the needle clamp, making sure it is inserted as far up as possible. Tighten the needle clamp screw firmly.

When the needles are set correctly, the left needle is slightly higher than the right one.
If needles are not correctly inserted, skipped stitches will result.
This machine is equipped with needle systems H.A*1 (Needle are household type).



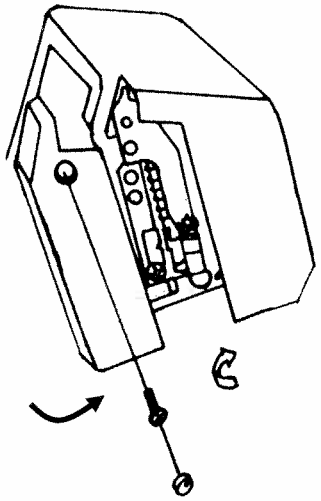


REPLACING THE BULB

Turn the power switch to "OFF" before replacing the bulb.

1. Take the hole cap off by needle.
2. Loosen the screw until it is taken apart.
3. Pull the lamp cover off from the low part.
4. Push and twist and then remove the old bulb.
5. Insert the new bulb and twist to its position.

Important:
This machine is designed to use 15 watt bulb.
The bulb is available from your local dealer.



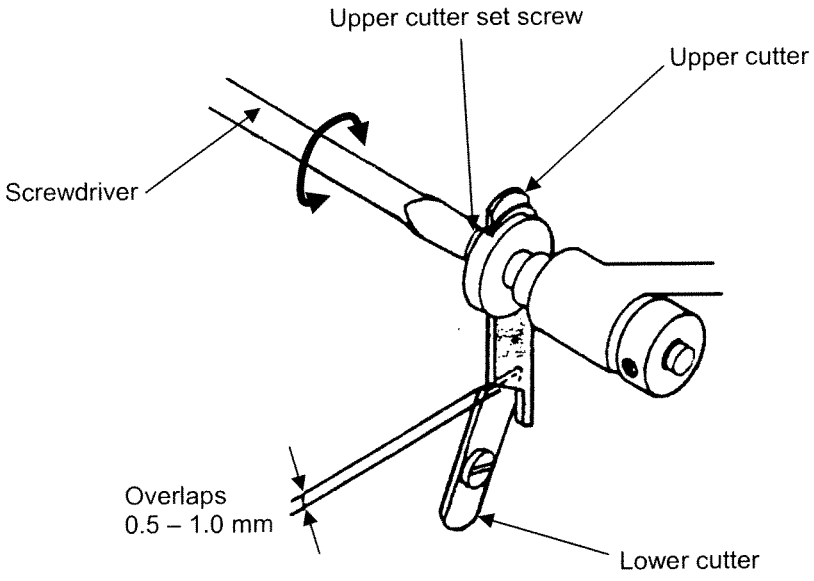
REPLACING THE CUTTERS

Turn the power switch to "OFF" before replacing the cutter blades.

The lower cutter is made of special material and does not usually need to be replaced. However, should it become damaged, it can be replaced by your local dealer.

To replace the upper cutter when it becomes dull :

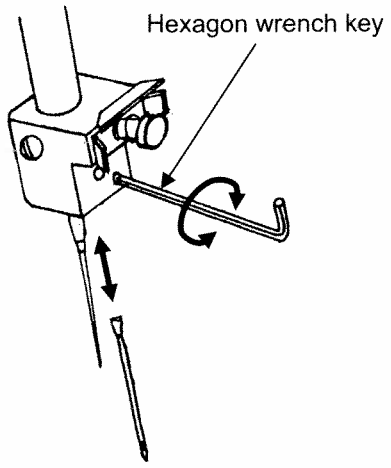
1. Open the front cover and turn the handwheel toward you until the needles are in the lowest position.
2. Using the screwdriver from the accessory box, loosen the upper cutter set screw and remove the upper cuter.
3. Replace the new upper cutter and slightly tighten the upper cutter set screw.
4. Adjust the position of upper cutter so the edge of the upper cutter overlaps 0.5-1.0mm from the edge of lower cutter as shown below.
5. Tighten the upper cutter set screw firmly and close the front cover.

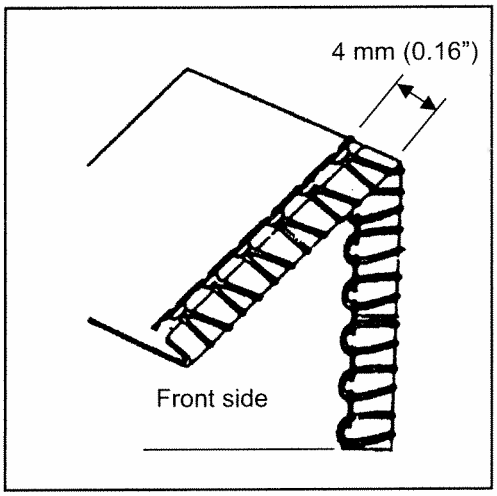


THREE THREAD NARROW AND WIDE OVERLOCK STITCH

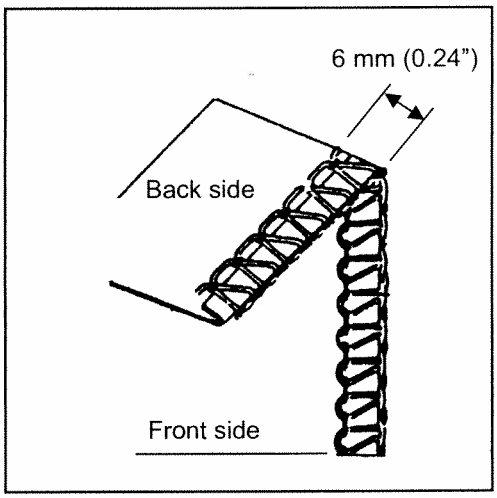
This machine is a 3/4 thread convertible overlock.
Remove either the right or left needle. Your machine is now ready for use as a 3-thread overlock.

Refer to "CHANGING THE NEEDLE"





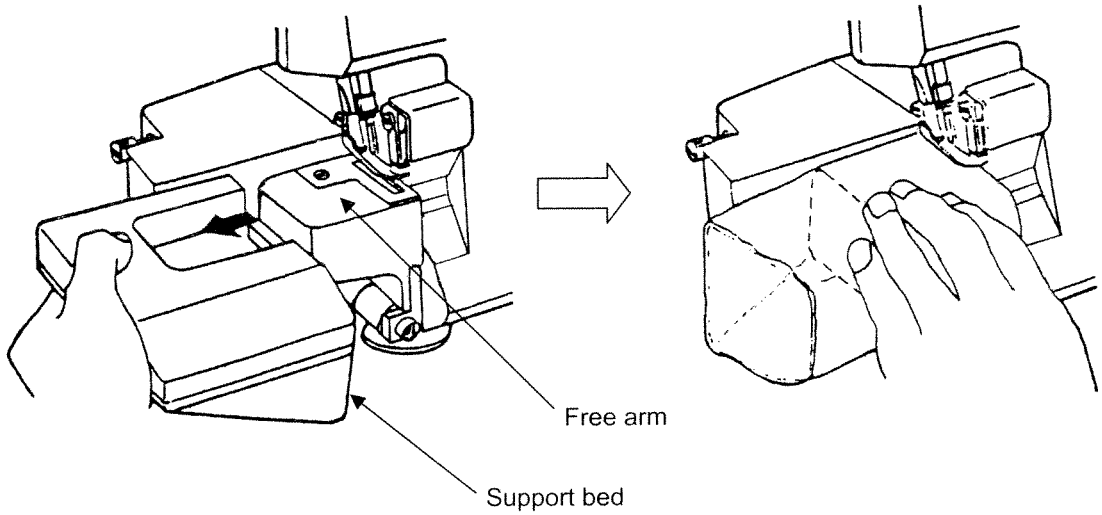
Using the needle on the right only, the stitch width is 4 mm (0.16").



Using the needle on the left only, the stitch width is 6 mm (0.24").

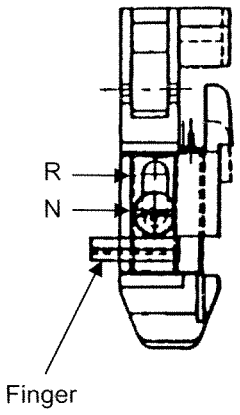
FREE ARM SEWING

Remove the support bed as illustrated which easily converts from a flat bed to free arm. Convenient for sewing pant legs, sleeves and cuffs, etc.



CONVERTIBLE PRESSER FOOT

The special presser foot, is set for normal overlock with the letter N adjacent to the vertical screw at front of presser foot. When you need to sew a rolled edge, simply loosen the large screw slightly and move the finger that protrudes from left side of foot forward until is stops, then re-tighten the screw. The letter R will now be adjacent to screw.



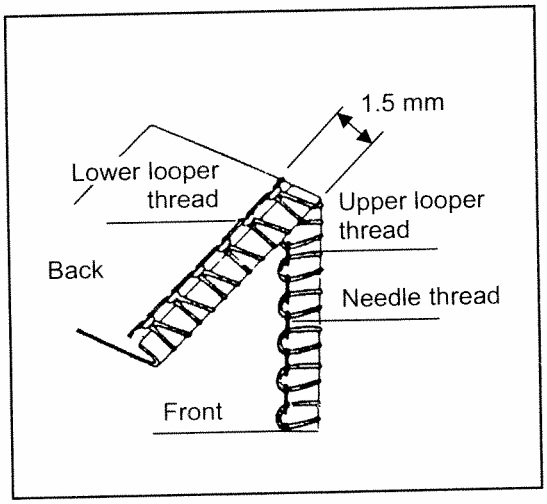
ROLLED AND NARROW EDGE

To carry out either of the above sewing tasks proceed as follows.
(1) Refer to page 22 for special foot position setting.
(2) Turn the handwheel toward you until needles are fully raised.
(3) Open front cover and remover left needle. See page 19.
(4) Set stitch length between 1.0-2.0 mm. See page 17. Also ensure that differential control is set at 'N' position.
(5) Adjust stitch width, as shown on page 18.
(6) If not already threaded re-thread the machine.
(7) Place fabric under presser foot and start to sew.

Always test the stitch and tension settings on scrap fabric before sewing on an actual garment. When either Rolled or Narrow hemming, we recommend you change the threads as shown on page 24.
ALWAYS remember to re-set the special foot for normal serging after you have finished your rolled edge procedure.

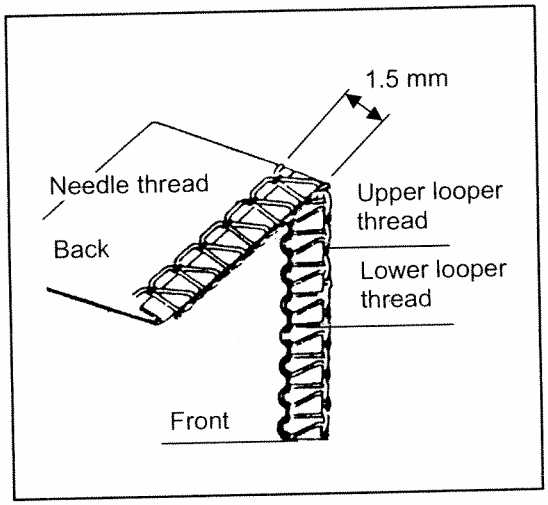
[ROLLED EDGE]

With a rolled edge the loops formed by the upper looper thread should be pulled to the underside of the fabric. This is done by setting the tensions as shown on page 24.



[NARROW EDGE]

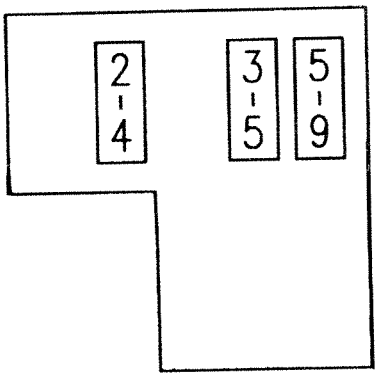
For seams on sheer or lightweight fabrics, set tensions as shown on page 24 for a balanced tension.



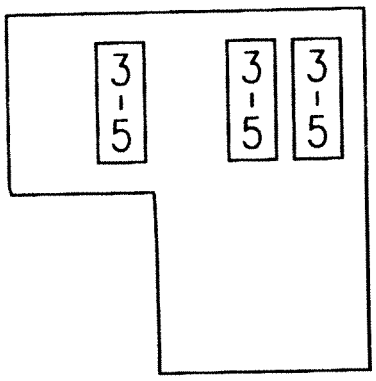
Important: If necessary, adjust the stitch length and cutting width.

Fabrics		Threads	
		Rolled hemming	Narrow hemming
· Georgette · Lawn · Crepe-de-chine	Needle thread	· Spun polyester No. 50 - 80 · Polyester continuous No. 50 - 80	· Spun polyester No. 50 - 80 · Polyester continuous No. 50 - 80
· Silk · Broadcloth · Rayon · Voile	Upper looper thread	· Spun polyester · Wooly-nylon · Rayon thread	· Wooly-nylon · Spun polyester No. 50 - 80 · Polyester continuous No. 50 - 80
etc.	Lower looper thread	· Spun polyester No. 50 - 80 · Polyester continuous No. 5 0- 80	· Spun polyester No. 50 - 80 · Polyester continuous No. 50 - 80

[ROLLED HEMMING]



[NARROW HEMMING]

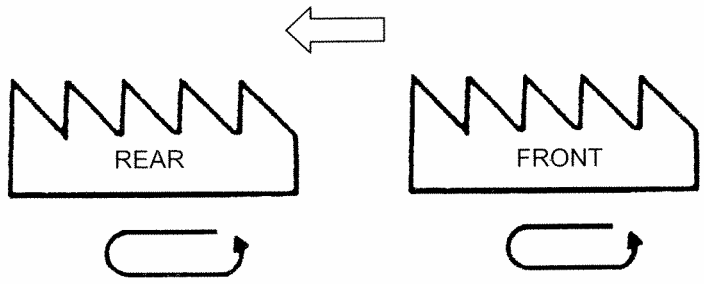


DIFFERENTIAL FEED

The differential feed prevents wavy seams in knitted fabrics and also movement between the layers of fabric. It also ensures pucker-free seams on lightweight fabrics.

[DIFFERENTIAL FEED MECHANISM]

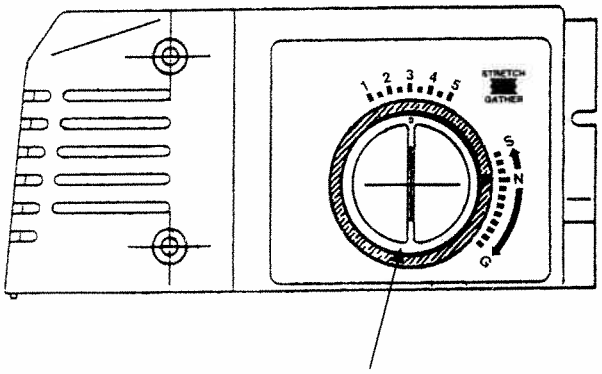
There are two sets of feed teeth, one front and one rear. The two sets of feed teeth move independently. Differential feed allows the two sets of feed teeth to move at different rates.



[ADJUSTING THE DIFFERENTIAL FEED]

The differential feed can be adjusted by simply turning the differential feed adjustment knob in the direction desired. Adjustment of the differential feed can be made while sewing.

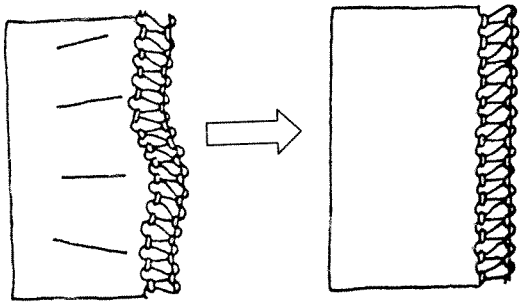
Important:
When sewing without differential feed, the adjustment knob for the differential feed should be set on the "N" position.



Differential feed
adjustment knob (Outside)

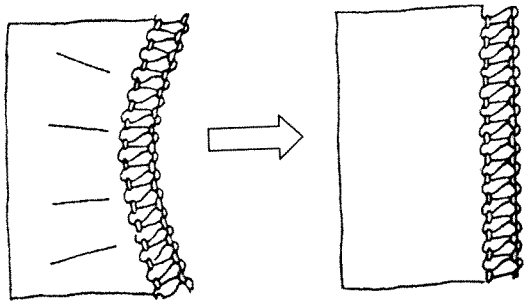
[WAVY KNITS & GATHERING]

For perfectly flat seams in stretchy knit garments, the front feed teeth need to feed faster than the rear feed teeth to prevent stretching the fabric. To Gather, the front feed teeth will also need to feed faster than the rear feed teeth. By using a long stitch length, (See page 25 to adjust). your fabric will easily gather. Set differential feed 2.0.



[STRETCHING TO PREVENT PUCKERING]

To avoid any puckering in seams on lightweight woven fabrics or smooth nylon, the rear feed teeth must feed faster than the front feed teeth. The front feed teeth, therefore, holds the fabric taut to prevent puckering.
Set the differential feed to .07.



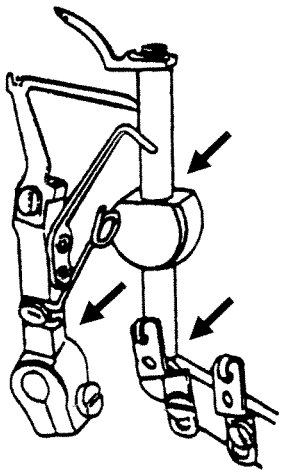
TROUBLE SHOOTING GUIDE

Check items below before calling for service.

Problem	Cause	Corrective action	Page
Needles break	1. Needles are bent, blunt or points are damaged. 2. Needles not inserted correctly. 3. You have forcibly pulled the fabric	1. Replace with new needles. 2. Insert the needles correctly to the needle clamp. 3. Guide fabric gently with both hands.	19 19
Thread breaks	1. Threading is incorrect. 2. Thread tension is too tight. 3. Needles not inserted correctly.	1. Thread the machine correctly. 2. Reset the thread tension. 3. Insert the needles correctly to the needle clamp.	10 · 11 13 · 14 19
Skipped stitches	1. Needles are bent, blunt or points are damaged. 2. Needles not inserted correctly. 3. Threading is incorrect. 4. Wrong needles used.	1. Replace with new needles. 2. Insert the needles correctly to the needle clamp. 3. Thread the machine correctly. 4. Use correct needles. (HA×1 or 130/ 705H)	19 19 10 · 11 19
Stiches are irregular	1. Thread tension is not correct. 2. Thread is caught.	1. Correct the thread tension. 2. Check threading path of each thread.	13 · 14 10 · 11
Seam puckering	1. Thread tension is too tight. 2. Threading is incorrect. 3. Thread is caught. 4. Differential feet not set.	1. Correct the thread tension. 2. Thread the machine correctly. 3. Check threading path of each thread. 4. Set differential feed to 0.7	13 · 14 10 · 11 10 · 11 26
Fabric not cutting neatly	1. Upper cutter is blunt or wrongly positioned.	1. Replace or adjust the cutter.	20
Fabric edges curl	1. Too much fabric is within the stitch.	1. Re-adjust seam width.	18

CLEANING AND LUBRICATING

To keep your machine running smoothly ; it is necessary to clean using the brush from the accessory box now and then.
This machine requires very little lubrication as the main components are made of special materials.
Occassionally, lubricate only the points illustrated.



SPECIFICATION OF MACHINE

Description	Specification
Number of threads	4 or 3
Number of needles	2 or 1
Sewing speed	Up to 1500 s.p.m
Stitch width	4 - thread.....6 mm
	3 - thread.....6 mm or 4 mm
Stitch length	1 ~ 5 mm
Lift of presser foot	4.5 mm
Needles	HA × 1 No. 11-14
	130/ 705H No. 75 - 90
Dimentions	285 mm (W) × 285 mm (D) × 291 mm (H)
Weight	7 kg (approx. 15 1bs.)